DoDAF Architecture Products for Enterprise Transformation

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Enterprise Architecture

The overall purpose of developing the set of architectures is to articulate the strategy for accomplishing the organizational goals and objectives by identifying key processes, organizations and resources. The architectural products help identify links between the investment strategy for enabling technologies and the business processes as a means to mitigate development risks and realize the expected return on investment. Essentially, the architecture is the bridge between technology and business processes. A valid architecture answers the following questions:

- Regarding the entity (individual or organization that is performing some function to provide or contribute to some capability): What is the mission?

- What is the vision (vision = statement of purpose for something somewhat un-obtainable that gives direction or purpose)?

- What are the performance measures that will delineate progress toward the mission and vision?

- What is the activity?

- Who performs the function/activity?

- Where is the activity performed?

- When (in relation to other events) is the activity performed?

- Why is the activity being performed?

- How is the activity performed?

- How many resources ($, time, materiel) are consumed doing the activity (how much)?

- Why might the activity not be performed (risks, security) (why not)?

Asking these questions allows one to describe the topics, terms, references, events, tasks, applications, databases, jurisdictions, parties, change efforts, and rationales about why business rules exist and establish a context in which business rules operate. Table 1 provides a mapping between the architecture questions above and the applicable architecture products.

A valid architecture answers the above questions in more than a diagram or flow chart (e.g., requires tabular or textual descriptions), fully represents inputs and outputs, and clearly identifies coupling to external communities of interest (both suppliers and customers).

Overall guidelines for developing architectures within the Enterprise Transformation Framework include:

- Use a Mission-Driven approach (formulate business rules guided by warfighter needs and by laws, and aligned with policy and directives)

- Use a consistent set of architecture products

- Use terminology from a common repository of approved definitions

- Develop and maintain architecture products in an automated tool with versioning capability

- Rationalize business rules and process models between Domains to identify gaps and overlaps

- Collaborate between Mission Areas and Domains to ensure consistent and integrated architecture products

- Use modeling and simulation to validate processes, flows and solutions and to identify information or information flows that are not needed

- Use iterative development and frequent release of architecture products to ensure timely and frequent feedback and continuous improvement

- Leverage scenarios as the starting point for solution design, linking activities from the DoD EA BRM and components[1] from the DoD EA SRM to ensure alignment and consistency with the BEA

The DoDAF is the required architecture framework for all DoD Services. A set of required DoDAF products, including extensions, have been established (Figure 3) as part of the Enterprise Transformation Framework. The list of required products (Table 1) does not preclude other products from being developed when appropriate.
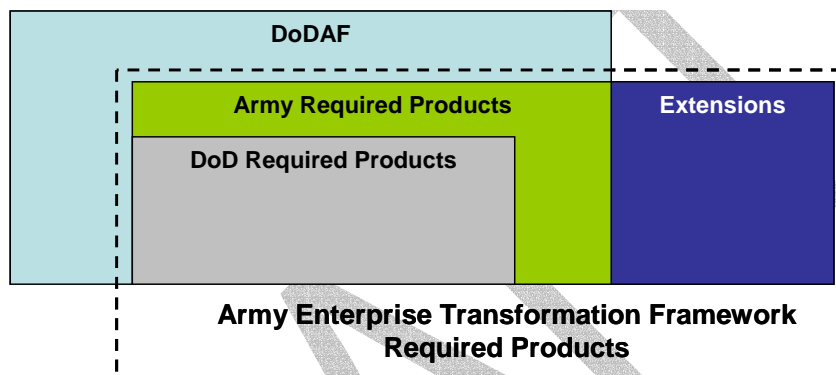
Figure 1 - DoDAF Products

Table 1 - Required DoDAF Products

Applicable View	Framework Product	Product Name	Required Product	Answers the Question
Standard DoDAF Products				
All Views	AV-1	Overview and Summary Information	✓	What?
All Views	AV-2	Integrated Dictionary	✓	What?
Operational	OV-1	High-Level Operational Concept Graphic	✓	Who What? Where?
Operational	OV-2	Operational Node Connectivity Description	✓	Who? What?
Operational	OV-3	Operational Information Exchange Matrix	✓	What?

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[1] A component is defined as "a self contained business process or service with predetermined functionality that may be exposed through a business or technology interface." (Source: Federal Enterprise Architecture)

Applicable View	Framework Product	Product Name	Required Product	Answers the Question
Operational	OV-4	Organizational Relationships Chart	✓	Who What? Where?
Operational	OV-5	Operational Activity Model	✓	What? Why? How? How Much? Why Not?
Operational	OV-6a	Operational Rules Model	✓	What? When?
Operational	OV-6b	Operational State Transition Description	✓	What? When?
Operational	OV-6c	Operational Event-Trace Description	✓	What? When?
Operational	OV-7	Logical Data Model		
Systems	SV-1	Systems Interface Description		
Systems	SV-2	Systems Communications Description		
Systems	SV-3	Systems-Systems Matrix		
Systems	SV-4	System Functionality Description		
Systems	SV-5	Operational Activity to Systems Function Traceability Matrix	✓	What?
Systems	SV-6	Systems Data Exchange Matrix		
Systems	SV-7	Systems Performance Parameters Matrix		
Systems	SV-8	Systems Evolution Description	✓	What? When?
Systems	SV-9	Systems Technology Forecast	✓	What? When?
Systems	SV-10a	Systems Rules Model	✓	When?
Systems	SV-10b	Systems State Transition Description	✓	When?

Applicable View	Framework Product	Product Name	Required Product	Answers the Question
Systems	SV-10c	Systems Event-Trace Description	✓	When?
Systems	SV-11	Physical Schema	✓	What?
Technical	TV-1	Technical Standards Profile		
Technical	TV-2	Technical Standards Forecast		
Framework Extension Products				
All Views	Extension Product-1a	Army Campaign Plan (ACP) Objective Alignment Matrix	✓	How are the Mission Area and Domain objectives aligned with the ACP Campaign Objectives?
Operational	Extension Product-8a	DoD Business Reference Model (BRM) Mapping	✓	What business processes does the Mission Area or Domain perform?
Operational	Extension Product-8b	BRM Gap and Overlap Analysis	✓	What business process gaps need to be filled and what opportunities for consolidation have been identified?
Systems	Extension Product-5a	DoD Service Component Reference Model (SRM) Mapping	✓	What services does the Mission Area or Domain perform?
Systems	Extension Product-5b	Business Mission Area to Warfighter Mission Area Mapping	✓	How do the Business Mission Area activities support the Warfighter Mission Area capabilities?
Systems	Extension Product-5c	SRM Gap and Overlap Analysis	✓	What service gaps need to be filled and what opportunities for consolidation have been identified?